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10/719,179	11/20/2003	James C. Chen	TUC920030141US1	3227

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EXAMINER	
BATES, KEVIN T	

ART UNIT	PAPER NUMBER
2153	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DAN-SHIFRIN@COMCAST.NET

Office Action Summary

Application No.

10/719,179

Applicant(s)

CHEN ET AL.

Examiner

Kevin Bates

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-18, 20-22 and 24 is/are rejected.
- 7) ☐ Claim(s) 5, 19 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Response to Amendment

This Office Action is in response to a communication made on November 9, 2007.

Claims 1 – 24 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-18, 20-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanthaveeraiah (7200646) in view of Yao (2003/0084219) (Applicant's IDS).

Regarding claims 1 and 15, Shanthaveeraiah teaches a method for configuring a path between nodes on a fibre channel fabric (Column 6, lines 23 – 26), comprising: querying a name server for addresses of ports of a target node connected to a fabric (Column 9, lines 49 – 61); receiving the address of a connected port (Column 9, lines 59 – 61); querying the name server for port names corresponding to the received addresses (Column 9, lines 62 – 65); receiving the port name of the connected port (Column 9, lines 65 – 67).

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Shanthaveeraiah does not explicitly indicate generating an interface_id of the connected port, the interface_id corresponding to a slot number of the target node in which the port is located.

Yao teaches a system for creating paths in channel fabric that includes generating a interface_id including a slot number of the target node in which the port is located (Paragraph 35)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of an internal port address ID (or interface_id) in Shanthaveeraiah's system in order to better address line cards according to their shelves and slots.

Regarding claim 7, Shanthaveeraiah teaches a storage area network, comprising:

a source node (Column 3, lines 50 – 53);

a target node having a node name (Column 3, lines 50 – 53);

a selected port in the target node having a port address and a port name (Column 7, lines 8 – 14);

a fabric to which the source node and the target node are coupled (Column 3, lines 50 – 53);

means for obtaining the address of the selected port (Column 9, lines 49 – 61);

means for obtaining the name of the selected port in response to the obtained port address (Column 9, lines 62 – 67).

Shanthaveeraiah does not explicitly indicate a data structure associated with the source node establishing a relationship between the port name of the selected port with a physical slot of the target node in which the selected port is located; or means associated with the source node for accessing the data structure and generating the interface_id of the selected port in response to the obtained port name.

Yao teaches a system for creating paths in channel fabric that includes a data structure associated with the source node and generating a interface_id including a slot number of the target node in which the port is located (Paragraph 35)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of an internal port address ID (or interface_id) in Shanthaveeraiah's system in order to better address line cards according to their shelves and slots.

Regarding claim 21, Shanthaveeraiah teaches a method for establishing a path between nodes on a fibre channel fabric, comprising:

modifying a target node name to generate the name of each port in the target node (Column 7, lines 8 – 14);

querying a name server for addresses of ports of a target node connected to a fabric (Column 9, lines 49 – 61);

receiving the address of a connected port; querying the name server for port names corresponding to the received addresses (Column 9, lines 59 – 61);

receiving the port name of the connected port (Column 9, lines 62 – 65);

from a name of a target node, generating the name of the selected port (Column 6, lines 8 – 15);

querying the name server with the name of the selected port;

receiving the address of the selected port (Column 9, lines 59 – 61); and

opening a session with the selected port (Column 1, lines 51 – 57).

Shanthaveeraiah does not explicitly indicate generating an interface_id of the connected port, the interface_id corresponding to a slot number of the target node in which the port is located and using the interface_id and the world-wide name are used in a look-up table to determine the physical address of a port on a server (Paragraph 57).

Yao teaches a system for creating paths in channel fabric that includes generating a interface_id including a slot number of the target node in which the port is located (Paragraph 35) and that the target name is the world wide name (Paragraph 33) and using the interface_id and the world-wide name are used in a look-up table to determine the physical address of a port on a server (Paragraph 57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of an internal port address ID (or interface_id) in Shanthaveeraiah's system in order to better address line cards according to their shelves and slots.

Regarding claims 2, 8, and 16, Shanthaveeraiah teaches the method of claims 1, 7, and 15, further comprising: from a WWNN of a target node querying the name server with the name of the selected port; receiving the address of the selected port

(Column 9, lines 59 – 61); and opening a session with the selected port (Column 1, lines 51 – 57).

Shanthaveeraiah does not explicitly indicate that the port name is generated using the interface_id and target name.

Yao teaches using the interface_id and the world-wide name are used in a look-up table to determine the physical address of a port on a server (Paragraph 57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of determining the physical address of the target in Shanthaveeraiah's system in order to allow devices to change address without having to rediscover all the devices on the network.

Regarding claims 3 and 17, Shanthaveeraiah teaches the method of claims 1.

Shanthaveeraiah does not explicitly indicate that modifying a target node name to generate the name of each port in the target node.

Yao teaches using the interface_id and the world-wide name are used in a look-up table to determine the physical address of a port on a server (Paragraph 57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of determining the physical address of the target in Shanthaveeraiah's system in order to allow devices to change address without having to rediscover all the devices on the network.

Regarding claims 4, 18, and 22, Shanthaveeraiah teaches the method of claims 3, 17, and 21.

Shanthaveeraiah does not explicitly indicate that the target node name is a world wide node name; and the port name of each port is a world wide port name.

Yao teaches a system for creating paths in channel fabric that includes using the world wide names to map the ports and target addresses to their physical address.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of mapping the WWNN to the address of the system in order to provide an index the physical address in case the physical address has been changes.

Regarding claims 6, 20, and 24, Shanthaveeraiah teaches the method of claims 1, 15, and 21.

Shanthaveeraiah does not explicitly indicate that the address of each connected port is a destination_id.

Yao teaches that the port address is added into the physical addressing of the target node in the system (the destination address (Paragraph 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yao's teaching of including port address in Shanthaveeraiah's system in order to allow direct ports to be addressed.

Regarding claim 9, Shanthaveeraiah teaches the storage area network of claim 8, further comprising a name server, comprising: means for receiving a query from the source node requesting addresses of ports in the target node (Column 9, lines 59 – 61); and means for transmitting the port addresses to the source node (Column 9, lines 65 – 67).

Regarding claim 10, Shanthaveeraiah teaches the storage area network of claim 9, wherein the name server further comprises: means for receiving a query from the source node requesting port names corresponding to the transmitted port addresses; and means for transmitting the port names to the source node (Column 9, lines 62 – 67).

Regarding claim 11, Shanthaveeraiah teaches the storage area network of claim 9, wherein the name server further comprises: means for receiving the name of the selected port and a query from the source node requesting the address of the port corresponding to the received port name; and means for transmitting the address of the selected port to the source node (Column 9, lines 49 – 61).

Regarding claim 12, Shanthaveeraiah teaches the storage area network of claim 8, wherein the means for obtaining the address of the selected port comprises: means for transmitting the name of the selected port and a query to a name server on the fabric requesting the address of the port corresponding to the transmitted name; and means for receiving the port address from the name server (Column 9, lines 49 – 67).

Regarding claim 13, Shanthaveeraiah teaches the storage area network of claim 7, wherein the means for obtaining the address of the selected port comprises: means for transmitting a query to a name server on the fabric requesting addresses of ports in the target node; and means for receiving the port addresses from the name server, the received port addresses including the address of the selected port (Column 9, lines 49 – 67).

Regarding claim 14, Shanthaveeraiah teaches the storage area network of claim 13, wherein the means for obtaining the name of the selected port comprises: means for transmitting a query to a name server on the fabric requesting names of ports corresponding to the received port addresses; and means for receiving the port names from the name server, the received port names including the name of the selected port (Column 9, lines 49 – 67).

Allowable Subject Matter

Claims 5, 19 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed November 9, 2007 have been fully considered.

Regarding claim 1, the applicant argues that (A) Shanthaveeraiah does not disclose source or target nodes because the nodes are all located on a single device and (B) Shanthaveeraiah does not teach querying a name server for ports or for addresses.

The examiner disagrees (A) Shanthaveeraiah teaches fabric devices that are the source and target nodes of communication. Figure 2 and Column 4, lines 19 – 31 shows that there are actual devices communicating over a switch fabric. Column 9,

lines 49 – 61 shows that these fabric devices are the network nodes that contain the network addresses and port names (Column 1, lines 28 – 34).

(B) Shanthaveeraiah teaches that the host device makes two types of queries. In Column 9, lines 49 – 57, the first query is made to receive a list of devices and in column 9, lines 62 – 67 a request is made for the port names (the address of the port can be the port name). The library interface of the host device (Figure 8, element 503) and that request it made into the fabric to the name server (Column 9, lines 65 – 66).

Regarding claim 21, the applicant argues that (C) Shanthaveeraiah nor Yao does not disclose the target node name is modified and (D) that the combination does not generate the name of the selected port.

The examiner disagrees, regarding both (C) and (D) Yao teaches that the host device uses the interface_id and the world wide name are used in a look-up table to determine the physical address of a port on a server (Paragraph 57).

Regarding claim 2, the applicant argues that (E) the table in Yao only teaches IP address and not physical addresses for ports.

The examiner disagrees (E), there is no limitation in claims 2, 8, or 16 that limits the address to physical address or precludes IP address from meeting the limitation.

Regarding claim 4, the applicant argues that (F) Yao does not indicate that the target node name is a world wide name or the port name is a world wide port name.

The examiner disagrees, in paragraph 57, Yao teaches that there are unique identification for each port in the switch fabric. This includes identifying the node and its port by the world wide name.

Regarding the argument to claims 4, 19, and 23, the applicant's arguments are persuasive and the rejection has been removed.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent Publication 2004/0006612 invented by Jibbe because it teaches generating port names.

U. S. Patent Publication 2005/0010688 invented by Murakami, because it teaches changing WWPNS.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JK + BT

Kevin Bates
November 28, 2007

Thu Ha Nguyen
THU HA NGUYEN
PRIMARY EXAMINER